



NATIONAL SCIENCE FOUNDATION

Request for Information on Federal Video and Image Analytics Research and Development Action Plan

AGENCY: The Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO), National Science Foundation (NSF).

ACTION: Request for Information (RFI).

SUMMARY: The NITRD NCO and NSF, on behalf of the National Science and Technology Council's (NSTC's) Committee on Science & Technology Enterprise, request input from all interested parties on updating the 2020 Federal Video and Image Analytics (VIA) Research and Development (R&D) Action Plan (VIA R&D Action Plan), *Research and Development Opportunities in Video and Image Analytics*. Through this RFI, the public can submit suggestions of revisions or improvements for the VIA R&D Action Plan, including comments on the six strategic goals and objectives regarding additions, removals, or modifications, as well as suggestions on implementation of strategic goals and objectives. Public input provided in response to this RFI will assist the VIA Team in updating the VIA R&D Action Plan.

DATES: Interested persons are invited to submit comments on or before 11:59pm (ET) on September 5, 2022.

ADDRESSES: Comments submitted in response to this notice may be sent by any of the following methods:

- *Email*, VIA-RFI@nitrd.gov: Email submissions should be machine-readable and not be copy-protected; submissions should include "RFI Response:

Federal Video and Image Analytics Research and Development Action Plan”

in the subject line of the message

- *Mail*, Attn: Jacqueline Altamirano, NCO, 2415 Eisenhower Avenue,
Alexandria, VA 22314, USA

Instructions: Response to this RFI is voluntary. Each individual or institution is requested to submit only one response. Submissions must not exceed 10 pages in 12-point or larger font, with a page number provided on each page. Responses should include the name of the person(s) or organization(s) filing the comment.

Please note, responses to this RFI may be posted for public access online at <https://www.nitrd.gov>. Therefore, we request that no business proprietary information, copyrighted information, personally identifiable information, or personal signatures be submitted in response to this RFI.

In accordance with FAR 15.202(3), responses to this notice are not offers and cannot be accepted by the Government to form a binding contract. Responders are solely responsible for all expenses associated with responding to this RFI.

FOR FURTHER INFORMATION CONTACT: Jacqueline Altamirano at (202) 459-9677 or VIA-RFI@nitrd.gov, or by post mailing to 2415 Eisenhower Avenue Alexandria, VA 22314, USA. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m. (ET), Monday through Friday.

SUPPLEMENTARY INFORMATION:

Background: In 2018, thirty Federal organizations came together under the auspices of the NITRD VIA Team to develop an action plan for providing direction, coherence, and consensus across federal R&D efforts.

Since publication of the VIA R&D Action Plan in 2020, government agencies have invested in computer vision research from foundational efforts to the development of systems that support agency missions and programs. As a reference, NITRD supplements to the President's annual budget requests collect information on government spending in artificial intelligence (AI), part of which includes computer vision research, showing close to \$800 million in FY 2020, close to \$1 billion in FY 2021, and over \$1 billion in requests for FY 2022, as noted in Artificial Intelligence R&D Investments FYs 2018–2022.

At the same time, private sector funding on R&D of applications for video and image analysis continues to dwarf government funding in almost every domain. Examples range from combining computer vision with robotics for increased automation in agriculture to increasing the use of biometrics to provide secure access to consumer devices. Government can take advantage of the results of private sector R&D through an open marketplace. Still, the need remains for Federal research investment, given that there is a strong public benefit but little to no opportunity for building a private sector business case.

Along with the advances in research, development, and technology implementation over the past several years, there have also been changes in societal awareness of, expectations for, and the use of computer vision. For example, at the Federal level, Executive Order 13960, Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government, reflects the importance of human interaction with AI technologies, including video and image analytics.

The VIA R&D Action Plan lists the following six strategic goals and objectives:

- *Invest in foundational research that applies to multiple domains*
- *Develop new, agile, and effective R&D methodologies*

- *Improve communication and coordination across government agencies*
- *Improve outreach and knowledge sharing between the public and private sectors*
- *Develop and sustain an effective and diverse technical workforce and a robust research community*
- *Develop and promulgate standards and best practices that support integration of R&D*

Objectives: NITRD NCO seeks input on potential revisions to the VIA R&D

Action Plan to reflect changes in technology and the socio-technical environment over the past four years. Responders are asked to answer the following questions in response to the RFI:

1. What R&D has taken place relevant to each goal since the VIA R&D Action Plan was published in March 2020? How does R&D reduce or change the need for the Federal Government to continue to pursue each goal?
2. What societal changes have taken place that would impact the need for the Federal Government to continue to pursue each goal?
3. With R&D advances and changes in the socio-technical environment, what additional goal(s) should the Federal Government consider?

References:

Federal Video and Image Analytics Research and Development Action Plan (March 2020): <https://www.nitrd.gov/pubs/RD-Opportunities-in-Video-Image-Analytics-2020.pdf>.

NITRD NAIIO Supplement to the President's FY2022 Budget:

<https://www.nitrd.gov/pubs/FY2022-NITRD-NAIIO-Supplement.pdf>.

Executive Order 13960, Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government (December 2020):

<https://www.federalregister.gov/d/2020-27065>.

Submitted by the National Science Foundation in support of the NITRD NCO on July 8, 2022.

Suzanne H. Plimpton,

Reports Clearance Officer,

National Science Foundation.

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